NATIONAL WEATHER SERVICE PORTLAND OR

Pacific NW Spotter Newsletter

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Dry Weather Dominates the Winter in the Pacific Northwest

In the autumn of 2004, when the forecast for warm and dry conditions was issued for the winter of 2004-05, no one could have imagined it would be this dry. In fact, only the winters of 1976-77 and 2000-01 can compare with this current stretch of dry weather. Only areas along the Oregon and Washington coast can boast they received up to 75% of normal rainfall this winter. Most other regions received less than 50% of normal rainfall, with areas in the central and south Willamette valley receiving only 25-33% of normal rainfall.

Equally hard hit were the Cascades of Washington and northern Oregon. These areas experienced precipitation amounts as low as the Willamette Valley, and their snowfall amounts were less than 25% of normal. The Mt. Hood region currently stands at only 20% of normal snowpack with little improvement expected in the near future as the late winter/early spring snow season winds down to a close.

So, what are the prospects for a wetter regime this spring and summer? Well, it is quite unlikely that we will ever make up even a majority of the rainfall deficit in the next several months as we are so far behind normal. The outlook for the early spring months is for a better than normal chance of warmer temperatures and below normal precipitation (see pg. 3 for more details). Thereafter, the forecast calls for equal chances for above or below normal precipitation. However, the summer months are prone to very little rain as is, so don't expect much improvement. It may be until October or November until we see "drought busting" rains again. And what does this mean for the summer water supply? It's not good news, especially for areas with reservoirs that are filled from spring snow melt (see pg. 4 for more details).

Ice Storm Strikes the Willamette Valley for the Second Year in a Row

For the second time in as many years, freezing rain fell on parts of the Willamette Valley, causing traveling headaches. Unlike the storm of 2004, this January's storm struck during the relative calm of the weekend and lasted only 2 days. It was also accompanied by far less snow and about half the amount of ice seen in the previous year.

And as quickly as the ice started to form that January weekend, it disappeared. Incredibly, warm air from northern California spread over the region and eroded the cold air dome. Many locations saw temperatures rise nearly 15 degrees in only 30 minutes at the end of the storm. We would like to thank all those spotters who called in reports of the ice that weekend.

INSIDE THIS ISSUE:

SPECIAL POINTS OF INTEREST:

- ***Trivia :*** *What is the driest water year (Oct 1 - Sept 30) on record for the city of Eugene? (See answer on page 4)*
- ***Are you ready for the summer severe weather season?***

Please review your spotter materials and call-in criteria, or join us for one of our instructional classes in April and May.

Climate Page

After a somewhat near normal early autumn season, the only word that could sum up the winter of 2004-05 is DRY. When all is said and done, the winter of 2004-05 will end up being the 2nd or 3rd driest winter on record across the Pacific NW with only the winters of 1976-77 and 2000-01 being drier.

Measured Averages & Departures from Normal

		SEP	OCT	NOV	Autumn	DEC	JAN	FEB	Winter
Astoria	Avg Temp	58.4	53.7	46.3	52.8	45.2	44.7	44.7	44.9
	Departure	-0.1	+1.1	-0.2	+0.3	+2.4	+2.3	+0.5	+1.7
	Precip	4.30	8.43	6.70	19.43	7.24	5.78	3.30	16.32
	Departure	+1.69	+2.82	-3.80	+0.71	-3.16	-3.84	-4.57	-11.57
Portland	Avg Temp	62.8	56.3	45.8	55.0	43.1	41.7	43.5	42.8
	Departure	-0.8	+2.0	0.0	+0.4	+2.9	+1.8	+0.4	+1.7
	Precip	1.03	3.36	2.38	6.77	3.91	1.94	1.30	7.15
	Departure	-0.62	+0.48	-3.23	-3.37	-1.80	-3.13	-2.88	-7.81
Salem	Avg Temp	60.6	54.3	43.8	52.9	42.5	41.8	.41.4	41.9
	Departure	-1.6	+1.4	-1.4	-1.4	+2.3	+1.5	-1.6	+0.7
	Precip	2.08	3.30	2.14	7.52	3.89	1.43	0.49	5.81
	Departure	+0.65	+0.27	-4.25	-4.25	-2.57	-4.41	-4.60	-11.58
Eugene	Avg Temp	60.1	53.7	44.1	52.6	42.4	41.5	41.6	41.8
	Departure	-1.6	+1.1	-0.6	-0.4	+2.9	+1.7	-1.2	+1.1
	Precip	2.07	3.47	2.21	7.75	4.11	1.66	1.27	7.04
	Departure	+0.53	+0.12	-6.23	-5.58	-4.18	-5.99	-5.08	-15.25

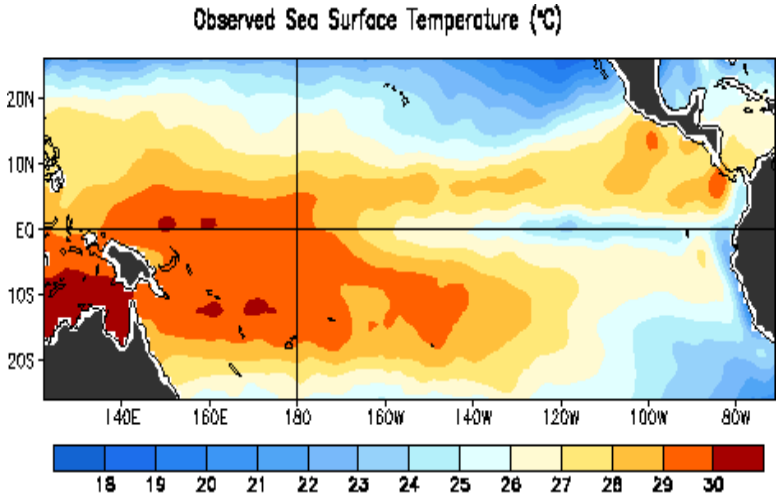
Normals for the Spring and Summer Months

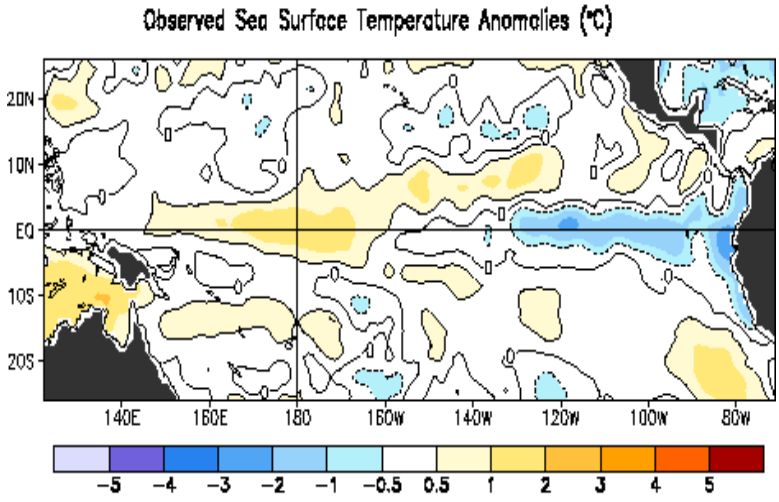
	MAR	APR	MAY	Spring	JUN	JUL	AUG	Summer
Astoria Avg Temp	46.0	48.5	52.7	49.1	56.7	60.1	60.8	59.2
Avg Precip	7.37	4.93	3.28	15.58	2.57	1.16	1.21	4.94
Portland Avg Temp	47.2	51.2	57.1	51.8	62.7	68.1	68.5	66.4
Avg Precip	3.71	2.64	2.38	8.73	1.59	0.72	0.93	3.24
Salem Avg Temp	46.5	50.0	55.6	50.7	61.2	66.8	67.0	65.0
Avg Precip	4.17	2.76	2.13	9.06	1.45	0.57	0.68	2.70
Eugene Avg Temp	46.3	49.8	54.8	50.3	60.2	66.2	66.4	64.3
Avg Precip	5.80	3.66	2.66	12.12	1.53	0.64	0.99	3.16

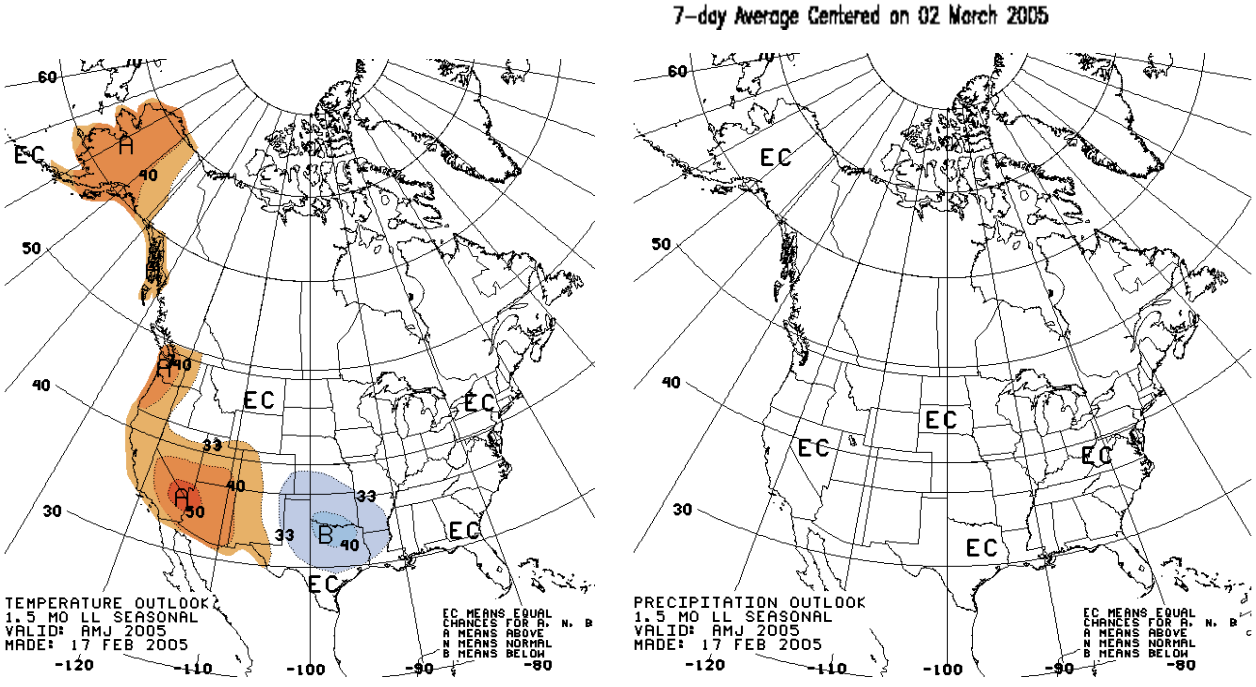
Climate Outlook

Weak El Nino conditions prevailed over the winter of 2004-05 across the Pacific Northwest. El Nino is officially defined as sea surface temperature anomalies greater than +0.5°C across the central tropical Pacific Ocean. In the past few weeks, these warm temperature anomalies have subsided slightly, and it appears the El Nino conditions are waning. The forecast calls for a gradual shift to neutral sea surface temperature anomalies this spring, with continued neutral conditions through the summer and into autumn.

Typically in the Pacific Northwest, spring months with declining El Nino indices are characterized by warmer and drier than normal conditions (i.e. the weather we've been experiencing most of the winter). As we transition into later spring and summer, we should expect equal chances for above or below normal temperatures and precipitation (i.e. near normal conditions).







Water Supply Outlook for Spring & Summer 2005

The outlook for the spring and summer is for below normal water supply in most Oregon river basins due to below normal precipitation and very low snowpack this winter. Water shortages for many users are a strong possibility for the spring and summer months.

In addition to the near record low precipitation totals this winter, warm temperatures have melted most of the snowpack below 5000 feet. At a time of the year which is typified by maximum snowpack, several reporting stations in the Cascades are reporting near record low snow depths. Based in historical trends, it is quite likely that areas below 5500 feet will have no snowpack by April 1.

As of the beginning of March, major reservoirs in Oregon are filled to 42% of their capacity. This represents 104% of storage for the same time last year, however, additional runoff this spring will be much less than last year, and several reservoirs are likely not to fill in time for the irrigation demand season and recreational use.

Current streamflows across Oregon and Washington are well below normal with many river gauges reporting near record low levels for this time of year. These streamflows are more typical for the months of July and August. Flow rates reported at the beginning of March are 40-70% of normal for this time of year, with little improvement expected. (Contributing author Andy Bryant, Senior Service Hydrologist NWS Portland)

Trivia Answer : The water year of 2000-2001 in Eugene only accumulated 20.48 inches of precipitation. This current water year is on pace to nearly equal or break this record.

Spotter Corner

Commendations to:

Spotter John Vaaler, Multnomah-3, in recognition and appreciation to services rendered for the National Weather Service. John astutely alerted us after he received an inch of rain in only 1 hour on August 25, 2004. We were able to issue urban flood and flash flood warnings based on this ground truth observation with advanced warning to the rest of the public. And indeed, many areas of East Portland and Gresham lay underwater from this deluge. Sadly, one person died after being swept into the swollen Sandy river, however the consequences may have been more serious without the crucial piece of information passed on by John. Thank you John!!

Reporting Hail Sizes

Remember, when reporting hail sizes: if you don't have a ruler, equate the hail size to monetary denominations. Please do not report "marble-sized" hail, as marbles come in all different sizes. Here's a summary of what to report :

Dime sized = 0.50 inch

Penny sized = 0.75 inch

Nickel sized = 0.88 inch

Quarter sized = 1.00 inch

Half Dollar sized = 1.25 inch

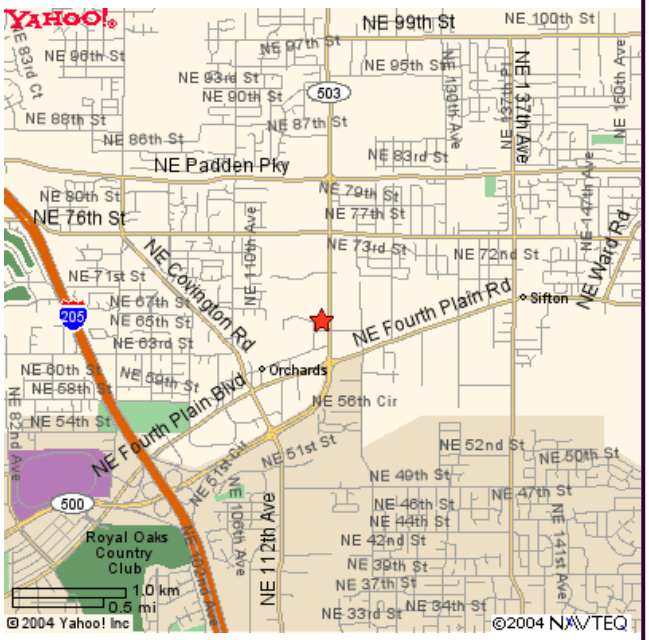
New Spotter Training Sessions this April & May

The National Weather Service has scheduled 4 spotter training sessions this April and May. We encourage all active spotters who have not been to a training seminar in a few years to attend, and help us recruit new members to the spotter community. Perhaps you know a friend or relative who is interested in weather and public service. We are particularly interested in recruiting people residing in more remote areas of the region, where observations are hard to come by. In these training sessions, we will focus on summer severe weather, although we will cover all aspects of significant weather in the Pacific Northwest. We look forward to seeing everyone in the near future. See page 5 for the locations of the spotter training classes.

New Spotter Training Sessions this April & May - Locations

Thursday, April 7th at 7:00 pm
Dallas, OR
Dallas Fire Department - Training Room
915 SE Shelton

Tuesday, April 12th at 7:00 pm
Vancouver, WA
NW Regional Training Center-Baker Room
11606 NE 66th St Suite 103



Wednesday, April 27th at 7:00 pm
Yamhill Co, OR.
Springbrook Fire Dept - Training Room
3100 Middlebrook Dr - Newberg, OR

Tuesday, May 3rd at 7:00 pm
Clackamas, OR
Clackamas Co. Fire District 1—Room B
15970 SE 130th

Summer Severe Weather Spotter Checklist

<u>High Winds :</u> Sustained 40 mph and greater or gusts over 58 mph.
<u>Heavy Rain :</u> Over 1.5 inches in 24 hours, or 0.75 inches in 1 hour.
<u>Flooding :</u> Any kind of river flooding.
<u>Hail :</u> 1/2 inch (dime size) or larger
<u>Lightning :</u> Frequent cloud-to-ground which poses significant danger
*<u>Tornadoes, Funnel Clouds, Wall Clouds :</u> **Always** look for rotation and report direction of movement*

Is Your Community Tsunami Ready?

March 7, 2005 - Officials from NOAA's National Weather Service recognized the city of Lincoln City, Ore., as a leader for becoming the first TsunamiReady community since the multi-national Indian Ocean tsunami tragedy. NOAA, the National Oceanic and Atmospheric Administration, is an agency of the U.S. Department of Commerce. Lincoln City becomes the 16th community in the United States to receive this certification.

"While an expanding tsunami observation and communication network allows NOAA forecasters to monitor conditions and issue warnings, the public must know how to react to such warnings in order to complete an effective tsunami warning process," said Brig. Gen. David L. Johnson, U.S. Air Force (Ret.), director of NOAA's National Weather Service. "The TsunamiReady program helps educate the public on the immediate actions necessary to stay safe."

“TsunamiReady arms communities with improved communication, education and safety skills needed to save lives and property,” said Tyree Wilde, warning coordination meteorologist at the NWS Weather Forecast Office in Portland, Ore. “With TsunamiReady, communities are encouraged to improve public awareness and local response to hazardous situations, associated with tsunamis before and during such an event.”

“Preparation and advance warning are vital factors in tsunami readiness. Citizens in a seaside community, such as Lincoln City, which is in an area prone to earthquakes, must understand the importance of moving to high ground or inland immediately in case a tsunami occurs,” said Jay Wilson, earthquake and tsunami program manager for Oregon State Emergency Management.

In addition to becoming TsunamiReady, Lincoln City was also recognized as StormReady. At a recognition ceremony in Lincoln City, Steve Todd, meteorologist-in-charge of the NOAA National Weather Service office in Portland, Ore., presented special TsunamiReady and StormReady signs to city officials. The StormReady and TsunamiReady recognition will be in effect for three years when the county will go through a re-recognition process.

(Story courtesy of NOAA’s Public Affairs Office)

How NOT to place your rain gauge...